

**INTEGRATED READING AND WRITING OF A HOLOGRAM WITH A
ROTATED REFERENCE BEAM POLARIZATION**

ABSTRACT OF THE DISCLOSURE

5 A method for monitoring diffraction while recording a hologram includes: generating a source beam; generating a data beam by projecting a first component of the source beam through a data source, the data beam having a first polarization; generating a reference beam by adjusting a polarization of a second component of the source beam to provide a second polarization; recording a hologram in a holographic medium from an interference between the data beam and the reference beam; and measuring an offset component in an output arm of the data beam.

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